

REMARKS

Claims 7-9, 12-23, and 25, are currently pending in this application. Applicants have amended claims 7, 8, and 25. Support for the amended claims can be found throughout the specification, e.g., at page 2, lines 25-28; at page 7, lines 19-22; and at pages 7-8, schemes 1-3. In addition, applicants have amended lines 25-28, at page 2; formula 1, on pages 2 and 5; and schemes 1-3 on pages 7 and 8 in the specification. The support for these amendments will be discussed in further detail below. Applicants submit that these amendments add no new matter. Applicants have canceled claims 24 and 26. Reconsideration of the application in view of the above amendments is respectfully requested.

Telephone Interview

Applicants would like to thank Examiner Margaret G. Moore for conducting a telephone interview on January 26, 2005 to discuss the office action. More specifically, errors in schemes 1 to 3, applicants' species election, and rejections of claims 7-9, and 12-26 were discussed.

Objections

The disclosure has been objected to on the following three grounds: 1) inaccuracies in schemes 1, 2, and 3; 2) R and R' being improperly defined to include hydrogen, alkyl, and aryl; and 3) the reaction on page 18 not having the same siloxane reactant or product as that of schemes 1-3.

Applicants have addressed all three issues below.

1) Inaccuracies in schemes 1, 2, 3, and formula 1 have been rectified. For purposes of clarification, applicants have replaced the R group in the product with an A group attached to the methylene repeating unit and a terminal hydrogen. R (an amino or hydroxy) after polymerization by an amidation or a transesterification reaction would yield a polymer with a repeating unit of A (NH or O respectively) and the last repeating A would be attached to a terminal hydrogen. Applicants submit that one of ordinary skill in the art would have noticed the discrepancy in terminology upon reading the application, and in particular scheme 9, and submit that the clarifying amendment to the product in schemes 1-3 and in Formula 1 is based, in part,

on scheme 9, which shows R, a hydroxy, undergoing polymerization to yield a product with a repeating unit of O.

2) To further complete the clarification of 1), applicants have amended the definitions of R and R' in the formulas and claims to exclude hydrogen, alkyl, and aryl, because, as the Examiner has noted in her Office Action, the resulting polymer would not contain a reactive terminal group. Applicants have amended R to include hydroxy and amino. Applicants have amended R' to include hydroxy and alkoxy. Support for this amendment can be found throughout the specification (e.g., see page 2, lines 25-26; page 4, line 11; and page 7, lines 20-21). For example, R is noted as being hydroxy or amino at page 7, lines 20-21.

Further, the definition of A has also been amended to exclude alkyl aryl and alkoxy to correct for an inadvertent error. A has been defined to include only O and NH. Support for this amendment can be found throughout the specification (e.g., see page 7, line 21).

3) Schemes 1, 2, and 3 have been corrected to encompass the siloxane reactant and product of reaction (scheme 9) on page 18. Schemes 1, 2, and 3 have been amended to replace the ethylene, between the silicon and the oxa group, to a methylene repeating unit. The siloxane reactant and product of reaction (scheme 9) on page 18 is covered by amended schemes 1, 2 and 3. Support for this amendment can be found throughout the specification (e.g., see formula 1, at page 2 and at page 6). Again, one of skill in this field, like the Examiner, would have noticed this discrepancy and recognized the error.

In view of these amendments applicants respectfully request the Examiner to withdraw the objection to the disclosure.

35 U.S.C. 112, First Paragraph

Claims 7-9, and 12-26, have been rejected for allegedly failing to describe the reactants or process necessary to make the claimed polyorganosilicone. See the Office Action, page 2, lines 13-14, and lines 17-18. Applicants respectfully traverse this rejection.

The rejection appears to be based largely on the discrepancies that the Examiner has pointed out in her objection to the specification, which applicants have addressed above. Based on the corrected specification, applicants submit that the specification provides a description of the process and reactants required for making the polyorganosilicones of claims 7 and 8. For

example, in reaction schemes 1, 2, 3 and example 5 (scheme 9). The polyorganosilicone of claims 7 and 8 can be synthesized by one of ordinary skill in the art by choosing appropriate reactants and process conditions, using the guidance provided by the above sections. In another example, when R is hydroxy, R' is alkoxy, and R'' is alkyl (from amended claim 7), a person of ordinary skill can choose suitable monomers, dimethyl hydroxyisophthalate and hydroxyl terminated polydimethylsiloxane (shown in scheme 9), and by following the method of example 5 synthesize the corresponding polyorganosilicone polymer in which A is O and B is arylene.

Similarly, when R is amino, R' is alkoxy, R'' is alkyl, a person of ordinary skill by choosing appropriate monomers, dimethyl hydroxyisophthalate and amino terminated polydimethylsiloxane (substituting the amino terminated polydimethoxysiloxane for the hydroxy terminated polydimethoxysiloxane of scheme 9), and by following the method of example 5, synthesize the corresponding polyorganosilicone polymer in which A is NH and B is arylene. As illustrated by the above two examples, polyorganosilicones covered by claims 7 and 8 can be synthesized by one of ordinary skill and are therefore enabled.

Claims 9, 12-23, and 25, are all compositions that include, or methods of making or using, the polyorganosilicones of claims 7 and 8, and thus these claims are also enabled. In view of the above, applicants respectfully request that the Examiner withdraw the rejection of claims 7-9, 12-23, and 25 for non-enablement.

The Office Action also states that the specification fails to enable making a silicone having the elected species group (see page 2, lines 23-24). Applicants' species election was discussed with the Examiner during the telephone conference, and applicants noted that the election of the species of hydroxy (OH) as represented by R and amino (NH) as represented by A was an inadvertent error. The species election should have been hydroxy (OH) as represented by R and oxa (O) as represented by A, because it is not possible to conduct a transesterification-type polymerization reaction with a monomer having a terminal hydroxy (OH) group to yield a product polyorganosilicone with an amino (NH) group, instead of the correct oxa (O) group. Scheme 9 is an example of the above reaction, which shows a monomer with a terminal hydroxy yield a polyorganosilicone with an oxa group. In any event, applicants submit that the claims as corrected herein meet the enablement requirement of Section 112, first paragraph.

Claims 24-26 have been rejected for failing to comply with the written description requirement. See the Office Action, page 3, lines 3-4. Applicants have canceled claims 24 and 26, and have amended claim 25 to list the endpoints of the ranges for the variables "x," "y," and "n" to comply with the written description requirement. Support for this amendment can be found, e.g., at page 2, lines 26-27). Therefore, applicants respectfully request that the Examiner withdraw the rejection of claim 25 for non-enablement.

35 U.S.C. 112, Second Paragraph

Claims 7-9, and 12-26, have been rejected as being indefinite, because B is a divalent group, but has been defined to be alkyl, aryl or alkoxy (monovalent groups). See the Office Action, page 3, line 25, to page 4, line 1.

Applicants thank the Examiner for noting this error, and have amended claims 7 and 8 to address this rejection. B had been inadvertently defined as the monovalent groups alkyl, aryl, and alkoxy. However, as can be seen from schemes 1, 2, 3, and 9, it is clear to anyone of skill in this field that B is a divalent group and not a monovalent group. Hence, applicants have rectified this error by substituting the terms alkylene, arylene, and oxalkylene (divalent groups) instead of alkyl, aryl, and alkoxy, their monovalent counterparts. Support for this amendment can be found in the specification (e.g., see page 7, line 21, and schemes 1, 2, 3, and 9). Amended claims 7 and 8 do not suffer from this deficiency and hence are not indefinite. Claims 9 and 12-23, all depend from claims 7 and 8 and are therefore also not indefinite. Thus, applicants respectfully request that the rejection of claims 7-9, 12-23, and 25 for indefiniteness also be withdrawn.

CONCLUSION

Applicants submits that the grounds for rejection asserted by the Examiner have been addressed, and that claims 7-9, 12-23, and 25 as pending, define patentable subject matter. Applicants respectfully request that the examiner reconsider and withdraw her earlier rejections and send applicants a notice of allowance.

Applicant : Rajesh Kumar et al.
Serial No. : 10/688,582
Filed : October 17, 2003
Page : 15 of 15

Attorney's Docket No.: 08688-056001 / UML 02-16, 18

No fees are believed due. However, please apply any other charges or credits to deposit account 06 1050, referencing Attorney's Docket No. 08688-056001.

Respectfully submitted,

Date: 02 - 07 - 2005



J. Peter Fasse
Reg. No. 32,983

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

21010392.doc